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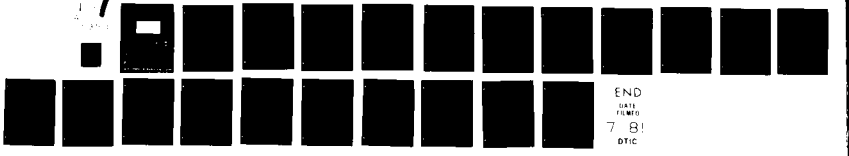

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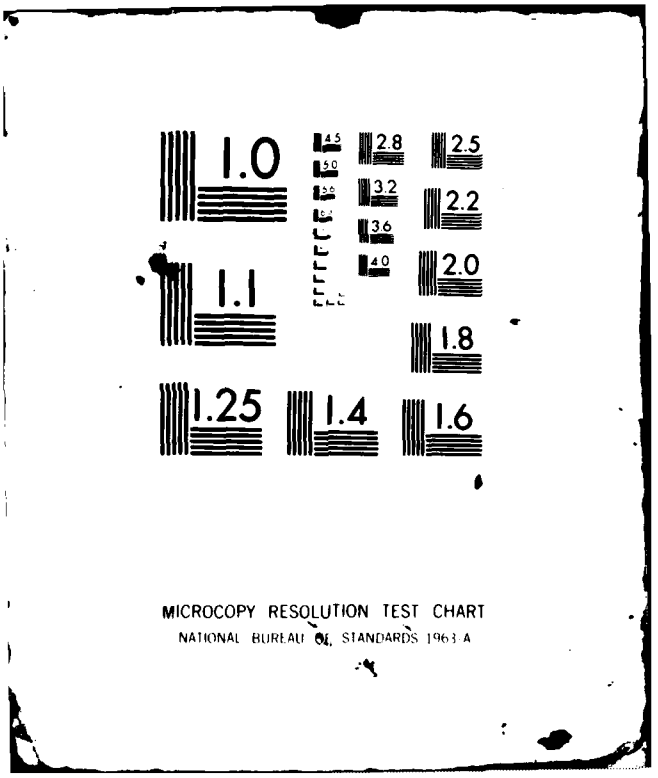
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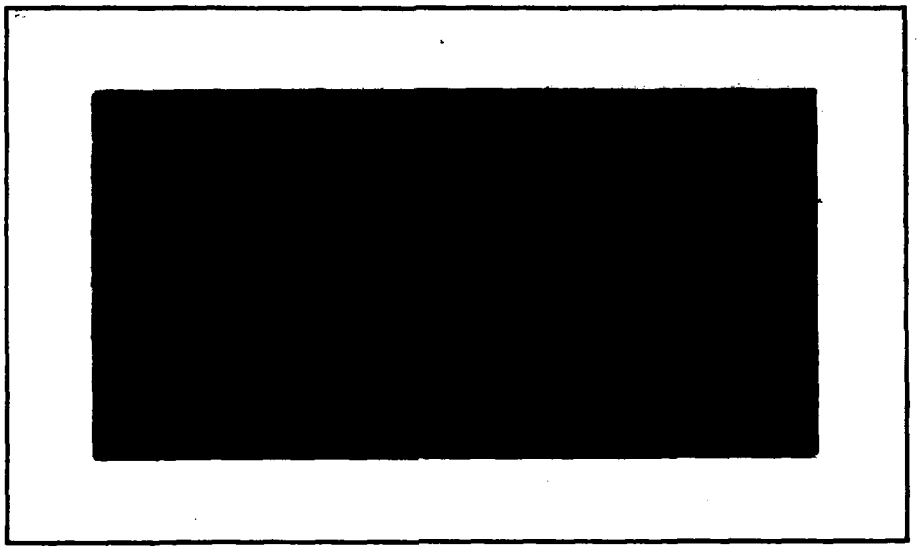

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THE CULTURAL/STRUCTURAL HISTORY OF PERSONNEL POLICY 1900-1980

This report was prepared under the Navy Manpower R&D Program of the Office of Naval Research under Contract Number N00014-80-C-0198

Principal Investigator: James F. Downs

April 15, 1981

DEVELOPMENT RESEARCH ASSOCIATES

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Good order and discipline, Captain's Mast, Equal Opportunity, Training, Retention

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It is the intent of the prinicpal investigator to examine Naval personnel policies and practices since 1900. The investigation will focus on twelve primary dimensions of Naval life: recruiting, primary training, discipline, uniform and grooming, leave and liberty, career development, rate and rank structure, compensation, recognition and awards, habitability, attrition/retention, and retirement. These will be compared along a time line for the period 1900-present. By comparison of these primary dimensions at different points in time, it is anticipated that specific and recurring patterns in →

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cont

Naval policy formation can be isolated and predictable systemic relations between primary dimensions revealed. The utility of the historical dimension is increasingly obvious when dealing with large-scale change.

TABLE OF CONTENTS

Accomplishments

SUMMARY OF PRELIMINARY FINDINGS

INTRODUCTION:

The project has devoted most of its energy to collecting existing data concerning actual events on board commissioned vessels over the period 1900-1980. Ships selected were:

BB	U.S.S. IOWA
	U.S.S. ARIZONA
	U.S.S. NEW JERSEY
CA/L	U.S.S. CHICAGO
	U.S.S. SALT LAKE CITY
	U.S.S. COLUMBUS
	U.S.S. SPRINGFIELD
DD	U.S.S. PERRY
	U.S.S. PRESTON
	U.S.S. HOEL
CV	U.S.S. LEXINGTON
	U.S.S. SARATOGA
	U.S.S. CORAL SEA
AUX	U.S.S. PROTEUS
	U.S.S. BRAZOS
	U.S.S. CANISTRO
	U.S.S. NAVAJO
	U.S.S. PAIUTE

Data collected from the deck logs of these vessels was:

a. On-board manning by rank/rate classified
   1. Officers, W.O., Line/staff/USMC
   2. Enlisted by rate in deck, eng., artificer, special, commissary, flag steward (aviation added when appropriate)
b. Numbers of absentees reported
c. Numbers of people brought to Captain's Mast along with charges, punishments

This data is being recorded on forms which include a categorization by function in addition to categorization by branch.

In addition, data has been collected from reviewing the following sources:

a. Blue Jackets' manual.
b. Annual reports of Secretary of the Navy.
c. Annual reports of Bureau of Navigation/Personnel.
d. Various official statistical publications.
e. Articles in Naval Institute Proceedings.
f. Articles in Our Navy.
g. Articles in Navy Times.
h. Various biographies and memoirs.

To supplement documentary/archival materials, interviews have been conducted at the Naval Home in Gulfport, Mississippi, and in San Diego, California.

At this point, however, the research product is essentially an accumulation of data which can be organized within the context of the proposed environmental matrix and subjected to analysis. At this stage it is safe to state that such analysis will yield:

a. A greater understanding of organizational dynamics which have been continuing and repetitive since 1900.

b. Clear documentation of those issues of personnel management which have remained constant over an 80-year period.

c. A relatively detailed account of how the Navy has dealt with those issues at various times in the past.

d. Demonstrated structural relationships between various primary dimensions.

e. A basis for planning and decision making which will anticipate systemwide adjustments to changes made in any one part of the system.

f. A basis for anticipating internal responses to technological changes and to external socio-economic-political events.

g. Conceptual models and theory which will enhance our ability to understand institutional patterns and processes and methodological approaches to the study of institutions.

h. Indication of a number of areas which can be fruitfully exploited by more narrowly focused research.

i. The relationship between structure (i.e. official policy/procedures) and behavior (i.e. Officer/Petty Officer status and authority), making it possible to make structural adjustments to achieve desired behavioral results. This is particularly significant in view of current concerns with re-establishing pride and professionalism.

This report will not attempt to summarize findings in all dimensions. Much of the data accumulated has not, as yet, been subjected to complete analysis. In some cases it has progressed to the degree that it is possible to isolate areas of possibly immediate usefulness if the analysis is carried to its proposed conclusion.

Examples:

Analysis to date suggests that the completed project will document certain recurring issues or historical trends and relate them to various factors which make the development of personnel policy more effective and less costly in time or money.

1. Captain's Mast: On all types of ships in every period the largest number of charges brought to Captain's Mast dealt with returning late from leave or liberty. Of these, the majority dealt with periods of absence of less than 24 hours. Over the period, and from ship to ship, the degree of enforcement varied a great deal. On some ships men were brought to mast for being five minutes late. On others it is obvious that there was an unstated "grace" period.

Similarly, punishments varied widely during the 80 years under study. Prior to 1916, confinement in irons was not uncommon. Confinement on bread and water was frequent until the post World War II period. Restriction, extra duty, fines and reduction in rank were used frequently throughout the period.

In certain years, however, overleave or unauthorized absence of less than 24 hours dropped to almost infinitesimal rates (e.g. 1940, U.S.S. Arizona, 1208 total on board, 66 cases). There would appear to be no connection between severity of punishments and low rates of violation. The rates in 1900-1910 when the punishments were extremely severe are the highest in the entire 80-year period. We cannot, however, argue that lesser punishments result in lowered rates, inasmuch as the rates of 1920, and 1930 are also extremely high.

What we can tentatively conclude is:

a. Dealing with sailors reporting aboard less than 24 hours late has absorbed virtually incalculable amounts of time of Commanding Officers since 1900, yet Captain's Masts have had little impact on the overall rates of violation. If complete analysis of the data continues to support this contention, the findings might become the basis of consideration of alternative means of dealing with the problem.

b. The cost avoidance savings of removing this offense from the purview of Captain's Mast would be significant, the lowest cost estimate of bringing any offense to Captain's Mast is $300.00 (developed by NMPC-6, 1978). Estimates of the number of such cases occurring in an aircraft carrier are upwards of 1000 annually. To make firm recommendations on this subject, it is necessary to compare various ship types. Smaller vessels at any period have much lower rates of violation (in some cases none in an entire year). This suggests that sanctions based on small group dynamics or exercise of sanctions at lower levels of authority may have a positive impact.

GOOD ORDER AND DISCIPLINE

An examination of all offenses brought to Captain's Mast over 80 years shows a wide variation in the rate of violation which, as in the case cited above, was extremely low in 1940. Inasmuch as there appears to be no significant relationship between rates of violation and severity of punishment, it has been necessary to seek possible relationships external to the data. These have been tentatively divided into: a) factors external to the Navy, b) culmination of historical trends and c) policies and procedures of the Navy itself.

1. External

a. One of the dominant historical facts of the 1930-40 period was the Great Depression. It is tempting to explain high re-enlistment rates and low rates of offense to the economic situation: (i.e. sailors were glad to have a job and afraid of being discharged for bad conduct). In fact, throughout the period 1900-1940 the Navy appears to have been reluctant to discharge people for minor offenses even when frequently repeated. Recommendation for, or records of, administrative discharges COG are extremely rare and never approach the rates attained in the 1960s and 1970s. It must also be noted that while the full dimension of the Crash of '29 was fairly clear in 1930, violation rates were relatively high. Nonetheless, we must assume that the economic situation did encourage the re-enlistment of the most desirable sailors. Over the period 1930-1940, the consequence was a steady increase in the ratio of older sailors to younger sailors. In 1907, the first year such statistics were kept, only 22% of the total enlisted force had served more than 4 years; of these 13.3% were in 4-8 year category. By contrast, in 1940, 42.4% of the enlisted force was in the over-4 year category, and of these, 28.2% had served over 8 years. While we have often noted that the loss of Petty Officers has an impact on technical performance, we have been less able to demonstrate the relationship between retention and good order and discipline. The data suggests very strongly, however, that the significant dimension may be age. In short, older sailors do not, or perhaps no longer, become involved in the kinds of activities which result in violations. And, a greater percentage of older sailors provide a wider range of professional role models and a greater degree of supervision. The implications of this hypothesis for manpower planning, in the areas of enlistment ages, career development, prior service recruitment, reserve recall, re-enlistment eligibility and retirement are far-reaching and suggest that additional research related to age of the force would be of great value.

b. The international situation had, by 1940, tended to bring the long-neglected Armed Forces back to popular attention and esteem. The Navy had increased in number from 84,938 in 1930 to 139,554 in 1940, which is reflected in the actual manning of ships (U.S.S. Arizona, 1930 - 468, 1940 - 1208). Life Magazine had in 1940 devoted an entire issue to the Navy. Films dealing with military and Naval life were being produced. All this undoubtedly contributed to an increased pride, a willingness to wear the uniform and to adhere to the norms of the service. Obviously the Navy cannot develop an international crisis in order to insure good order and discipline. The situation does have implications for Navy public affairs efforts and training, however, and, as will be suggested later, possible ramifications in analyzing ultimate cost-effectiveness (i.e. impact on pride, professionalism and operational readiness) of personnel policy and programs.

2. Historical Trends

a. Homogenization: from 1900 to 1940 there is a steady trend toward homogenization of the Naval enlisted force. This occurred in several areas.

Racial. In 1906 slightly over .082% of the enlisted force was non-white. Of these, slightly over one-half (1458) were black. In 1940 the non-white percentage had fallen to .04, of whom 4007 were black, 1833 were Filipino and 885 were Guamanians, serving almost entirely in the steward branch.

Nationality. The homogenization along national lines during the period 1900-1940 is even more striking than in terms of race. In 1900, 20% of the enlisted force were non-citizens and 19.9 were naturalized. A primary manpower goal of the early years of the century was to increase the percentage of native-born sailors. By 1940 96.9% of the enlisted force was native-born. Non-citizens decreased to .2%, while naturalized and residents of insular possessions represented only 1.3% and 1.6% respectively.

Recruiting Source. Enlisted men and most Warrant Officers were drawn from a variety of sources in 1900.

- Apprentices were native born and 16 to 18-years old.
- Non-rated deck, engineering, and artificer personnel were generally recruited from the seafaring population or craftsmen located in the port cities of the eastern coast and given ratings commensurate with their civilian experience.

Inasmuch as the apprentice program did not, as it was intended, produce long service personnel, and as the maritime industry as well as many of the trades were populated by non-citizens, it was necessary to change recruiting practices.

Common Experiences/Training. Apprentices underwent a period of instruction which included 6 months in a training facility ashore and up to a year in a school ship of the training squadron before being assigned to a cruising vessel. On-board cruising vessels apprentices were given special instruction which was apparently not available to ordinary or able-bodied seamen, firemen, oilers, landsmen, or coal passers. In 1940 all but a handful of pre-World War I veterans had entered the Navy as apprentice seamen and passed through a common recruit training program at one of several recruit training centers.

Thus, a sailor on board the U.S.S. IOWA in 1900 would be forced to interact with approximately 175 sailors (total on board 496) with foreign backgrounds. In addition, the ship would contain approximately 35 non-whites. With the exception of apprentices, ex-apprentices and less than a dozen officers, the members of the ship's company would have had *no common* training or orientation. In contrast, the sailor on board the U.S.S. ARIZONA (TOB 1208) would serve with only 48 non-whites, all of them stewards, and not more than 38 people born in other countries. In addition, he, his Petty Officer, Chief Petty Officers and Warrant Officers would share the same experiences of enlistment, training and indoctrination.

In short, 1940 was at the end of a period of homogenization in the Navy. This process began in the 19th century, as the line officer community became composed entirely of USNA graduates and continued with incorporation of engineers into the line. It spread into the enlisted community during the first 20 years of the 20th Century. The first signs of increasing heterogenity can be seen in the 1940 data with appearance on board of non-USNA officers from USNR sources.

The war and post-war period completely reversed this stability and the trend toward homogeneity in all areas under consideration.

It is impossible at this time realistically to consider a return to homogeneity through recruiting. Manpower requirements, law and basic socio-political philosophy make it essential that the Navy seek recruits from all segments of society. It is possible, however, to create homogeneity through training and indoctrination. This suggests that equal opportunity programs which address

racial, ethnic and sexual differences as a basis for understanding should be re-examined in light of the institutional benefits to be gained by stressing commonalities of aspiration and experience. This is supported by Slazy's study of Filipino and American sailors.

b. Structural Stability. The period 1900-1930 was one in which the last vestiges of sail technology were abandoned; coal was replaced by oil. The use of electricity increased. The radio was introduced, the torpedo incorporated into tactical doctrine and the airplane adopted.

One result of these technical changes was the disestablishment of many ratings, the addition of new skill requirements to existing ratings, and the creation of new ratings. Inasmuch as one's rating is a primary focus of personal identification for enlisted personnel, such instability seems likely to produce a degree of personal malaise which may find expression in lowered levels of good order and discipline. This is supported by the relatively high NJP rates during this entire period.

The decade 1930-1940 was one of rate stability -- no ratings were established, and only two disestablished. Blacksmith and coppersmith were combined in 1936, and sailmakers mate was incorporated in boatswains mate/coxswain in 1939.

World War II saw an unprecedented expansion of technology and organizational complexity which the existing rating structure could not accommodate. The result was an increase in the number of ratings, a process which has continued to date. Attempts to keep abreast of technical developments have resulted in frequent establishment, disestablishment and combination of ratings, as well as the development of the NEC system.

The analysis to date suggests that research examining in detail retention, discipline and other indices of high morale and professionalism as they relate to changes in the rating structure would provide useful guidance for future policy makers.

c. Policies and Procedures. Certain aspects of Naval life which are internal to the Navy appear to have had an impact on the situation reported in 1940.

Operational Activity. Although prolonged and repeated operations do have a negative effect on morale, it would seem that the absence of operational pressures has an equally demoralizing influence. The years 1920 and 1930 produced high rates of offenses brought to Captain's

Mast. These rates are also reflected in JAG reports of courts martial.

Percent of Enlisted Force

	GEN.	SUM.	DECK
1920	2.34	14.78	8.96
1930	1.38	7.10	4.70
1939	.25	3.42	2.47

No figures or reliable estimates of operational levels have been obtained for 1920, although appropriations had been reduced, and the political atmosphere encouraged general disarmament. Operational schedules for capital ships in 1930 were as low as 5 days per month and perhaps lower in the the mid-1930s.

In 1940, on the other hand, units of the Atlantic Fleet were engaged in neutrality patrol operations, the Pacific Fleet had shifted to Hawaii, fleet and unit exercises had increased, and the Asiatic Fleet was operating in a war zone.

The generally higher levels of good order and discipline reflected in 1939 and 1940 may in part be a result of the sense of excitement and participation engendered by the international situation. The impact of internal relations programs making clear the Navy's role and that of individual ships and units should be examined in light of this historical data.

Competition. Review of official and unofficial Navy publications reveals that this period of operational inaction was characterized by higher levels of officially sponsored sports programs. Veterans of this period universally recall sports programs. Boxing, baseball, football, and basketball teams on a ship and at group, fleet and all Navy levels are recalled with a great sense of identification, whether or not the informant was a participant. In addition to the sports named, rowing and sailing teams held regular competition; contests were also held in sending and receiving flashing light and semaphore. This sense of competition carried over into professional duties from carrying out routine evolutions to fleet exercises. It is a reasonable hypothesis that these high levels of competitive sports made up at least

in part for the low levels of operational activity and contributed to the maintenance of high levels of morale. This, if supported by further analysis, suggests that the cost-effectiveness of official competitive sports programs should be reviewed in terms of their contribution to the development of pride and professionalism.

Work and Liberty. During the 1920s and 1930s all ships were seriously undermanned (e.g. U.S.S. ARIZONA, 1930 -496; U.S.S. SALT LAKE CITY, 1930 - 492; U.S.S. PRESTON, 1921 - 37, 1927 - 109), requiring high work loads to maintain readiness. The amount of work is almost always mentioned by veteran informants. But in virtually every case the comments about work loads are linked to comments about liberty policies, early liberty, special liberty, etc., granted in recognition of superior performance.

Stability and Routine. Periods of apparently high morale correlate with periods of established routine and are marked particularly by such events as regular personnel inspections (followed by early liberty). There is a strong suggestion in the interview data that predictability is an important factor in maintaining morale. This is supported by the stability in the rating structure which resulted, on a daily individual basis, in a situation in which sailors could identify each other easily, assuring each of his place in the system. stability in the rating structure also resulted in stability in the career development processes which enhanced the status of senior enlisted personnel who could provide guidance and counsel based on experience.

AUTHORITY

The Navy is currently concerned about an apparent loss of prestige and authority of Petty Officers. Review of collected data and of Navy training materials, articles in the Naval Institute Proceedings, Our Navy, etc. demonstrate that this has been an issue at least since the first decade of this century.

The essential problem appears to be a tension between military and technical responsibility. The process, over an 80-year period can be represented along a continuum.

The situation in 1900 was one in which military authority was structurally enforced by:

a. Establishing a military precedence between ratings.
b. Establishing a complete chain of authority (i.e. 3rd class to CPO) only in ratings where a range of skill levels were required in the fleet.

c. Enforcing a qualitiative and observable distinction between Petty Officers and non-Petty Officers.
d. Assigning many necessary tasks which were not related to any rating (i.e. barber, tailor, laundry, etc.) to non-rated personnel.

The trend over the following 60 years has been to:
a. Develop a pattern of a chain of authority (i.e. 3rd class to MCPO) in all occupational groups.
b. Reducing the precedence between ratings.
c. Rewarding technical expertise by promoting in rank.
d. Diminishing the distinction between Petty Officers and non-Petty Officers.

The situation in 1980 can be represented as one in which:
a. All enlisted personnel from enlistment on identify with a technical speciality.
b. Emphasis within the training pipeline on technical rather than military skills.
c. Total elimination of precedence between ratings.
d. Inclusion of many occupational fields in the rating structure which were, in the past, collateral duties or totally outside the rating structure.
e. Effectively eliminating the difference between Petty Officers and non-Petty Officers by categorizing E-4s as apprenticeship ratings to be included with E-3, 2, and 1.
f. The practice of referring to personnel by pay grade rather than by rate.

An important factor in this process is the fact that levels of technical skill and knowledge do not correspond to levels of military authority.

This was recognized in the 1900-1920 period by recruiting technical experts directly from civilian life. Very few of the articifer ratings were represented at every rung of the Petty Officer ladders.

To a lesser extent this was true in the engineering ratings which until 1949 did not have 3rd class Petty Officers. During a brief period in the 1920s there were 3rd class machinist mates and water tenders. These rates, however, disappear from the muster sheets and appear to represent an unsuccessful structural experiment.

In short, the existence of a Petty Officer 3rd class, or conversely, a Chief Petty Officer, in any rating group appears to have depended on the perceived need for that skill level aboard ship.

The assignment of several "1st class" coppersmiths did not create an authority problem because the Navy clearly assigned military authority to the "right arm" ratings. These have been called "deck ratings," although in fact they were military ratings as

evidenced by the inclusion of master-at-arms in this group.

The addition of large numbers of small warships (torpedo boats, torpedo boat destroyers and destroyers) which did not have crews large enough to justify the assignment of MAAs resulted in these duties being assigned to boatswain's mates and gunner's mates. By 1920, the rating of MAA was disestablished and theoretically incorporated into all ratings.

Practically, however, rating precedence resulted in much military authority resting in the BM and GM rates.

These two ratings tended to be assigned billets in which authority was exercised over all enlisted personnel, while other ratings generally exercised authority only within their ratings, although TC, QM, SM TM and FC retained and sometimes exercised "right arm" authority.

Rating stability, referred to previously, existed through most of the 1920s and 1930s with no new ratings being created in the "deck" group until World War II, during which mineman, sonorman and radarman were added. It would appear that the original military versus non-military distinction had been forgotten, and the new ratings were assigned precedence according to their relation to "operations." That is, technical rather than military criteria were utilized.

The reorganization of the rating structure after World War II eliminated rating precedence and included a number of occupations and duties within the rating structure which hitherto had not been included (e.g. ships serviceman, personnelman), further emphasizing technical rather than military criteria.

The result was an increase in the number of CPOs in the fleet as well as the development of work centers manned in large part by Petty Officers of the same rate. While, in theory, these people had military authority, the technical nature of their work eliminated the need for junior enlisted, providing Petty Officers with no subordinates for whom they were immediately responsible.

The division of the non-rated force into separate occupational apprentices (SN, FM, AN, CN, HN, DN, etc.) and the inclusion of E-4 in the apprenticeship catagory has been a final step in a process whereby requirements have been almost totally replaced by technical criteria in personnel planning.

This project has been able, because of its deliberately broad scope, to summarize and provide some documentary support for a situation which is intuitively recognized throughout the Naval service.

There is a distinct need for intensive research on recruiting, training, manning, compensation and rating structure to provide

a basis for restoration of the structural support of Petty Officer prestige and authority.

OFFICER ROLES AND AUTHORITY

Although the data at this time is incomplete and has not been subjected to analysis, certain issues are obvious enough to deserve discussion.

Over the 80-year period there has been a tendency for the number of commissioned officers to increase in relation to the enlisted force on board. During the same period, the number of warrants has increased from 4 to over 20. This has been paralleled by an increase in the number of ratings leading to CPO and the creation of MCPO and SCPO rates. The decision, in 1901, to utilize the Warrant Officer/Chief Warrant Officer rank as a conduit for enlisted movement into officer status appears to be a fundamental element in this problem.

The data thus provides an illustration of the structural basis for a confusion of roles between Junior Officers, Warrant, Chief Warrant Officers and Master Chief Petty Officers, particularly in terms of their relationships and responsibilities as they relate to enlisted personnel.

Efforts to resolve this problem are ongoing and have resulted in the development of the Command Master Chief Billet. Nonetheless, there is a fruitful field of research on subjects related to the roles, functions, responsibilities and operational requirements at this level of the chain of command. Completion of the analysis of data collected in this project will provide a foundation for such research.

CAREER DEVELOPMENT/RETENTION/RETIREMENT

This is another area in which the data is not complete and analysis has not, in any rigorous sense, begun. There are certain recurring themes which suggest fruitful avenues of exploration.

1. Little data has been collected to determine specific lines of development of enlisted careers. In general, however, the trend has been toward formal school training in all fields and away from OJT. This has been paralleled by a developing pattern of identifying an occupational field at the point of recruitment. This practice has been frequently criticized and may be a response to pressures created by the draft. Most certainly a re-examination of the policy would be valuable.

The goal of recruiting large numbers of native-born is clearly related to the development of technical schools.

It was surprising to the principal investigator to note that time

in service and time in rate requirements for promotion to Chief Petty Officer and to Warrant Officer were much less in the early years of the century than they are today.

In the Officer Corps there has been a continuing trend of specialization in terms of the creation of new staff communities. In 1900, the Officer Corps, at sea, consisted of Line, Surgeon, Paymaster and, in most cases Chaplains. Ashore, Naval constructors and instructors were included in the staff. Today, dentists and supply corps billets have been added. Ashore, civil engineering, medical service, nurse and Judge Advocate Corps have also been added. Constructors and civil engineers have been combined and instructor abandoned.

Within the line, a similar process has been in operation. The line is today composed of surface, submarine, aviation, intelligence, public affairs and communities, as well as the even more restricted LDO groups.

The formation of these distinct groups with little in common beyond accession training has been gradual, but developed full momentum after World War II. Present structure brings into question the "unrestricted line" as a viable concept except at the highest levels of command.

It also suggests that officer training should be objectively examined in light of present day and near future expectations. As suggested in the interim report, a training philosophy which emphasizes "command at sea" as the primary goal of all line officers may be counter-productive in terms of retaining effective and occupationally satisfied middle-grade officers.

ENLISTED RETENTION

A review of gross personnel figures over the past 80 years indicates that although a 30-year enlisted career program exists, it has never been a serious element in career planning. Except in wartime when enlistments were involuntarily extended and retirees recalled, the number of people with over 20 years of service seldom exceeded 2% and has frequently been below 1%. Thus, efforts to enlist a long-term professional force, which began in the 19th century and continues at present, have proven to be at best only partially successful.

This area is one from which the principal investigator expects to develop valuable data and from which concrete programmatic recommendations can be made.

RETIREMENT

We have as yet relatively little data on retirement, particularly data which might suggest more effective utilization of retired and

Fleet Reserve personnel. Additional data from the post World War II period is required before even tentative conclusions can be drawn.

CONCLUSION

The project to date has accumulated a great deal of data and has demonstrated that the environmental matrix is a viable means of organizing historical data prior to subjecting them to analysis.

None of the subjects discussed in the report can be considered "final." Some data remains to be collected, and all dimensions require further detailed analysis. The potential for developing conclusions which serve as a guide for policy makers is very great.

Results to date suggest that personnel policy issues can be studied effectively and economically by using the concepts of structure and function as basic approaches.

It has also demonstrated clearly the long term effect of policy decisions in a continuing institution. Certain impacts, positive and negative, of the 1940s and later can be traced to policy decisions made prior to World War I. On the level of theory, the work to date indicates that time is a necessary variable for effective analysis of any human (as opposed to mechanical) system for which the Navy is an example.

The project is clearly half-finished, but promises useful and valuable results if carried to its proposed conclusion.

Reports, journal articles, books, and papers published or in press

Time, the forgotten variable in systems analysis (in preparation).

Publicity, speeches, colloquia, honors, recognition, etc.

Paper: Organizational Analysis; A Tool For Decision Makers: delivered at the American Ethnological Society meetings, Washington, D.C., March 26, 1981.

Lecture: "Organizational Culture; The Navy Example;" delivered at the University of Southern California, School of Public Administration, Washington, D.C., March 24, 1981.

Problems encountered (analysis problems, equipment failure, subject access, etc.) which have impacted on research progress during the quarter

Progress has been slowed somewhat because access to post World War II records is more difficult to obtain. In addition, methods of recording and storing NJP data were changed.

Financial status. Is expenditure rate consonant with proposal budget? If not, please explain

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Action required by ONR

No specific action required of ONR.

Plans and milestones for the next quarter and for subsequent periods

Plans for next quarter and subsequent periods.

a. Complete data collection by June 1, 1981.

b. Continue analysis and prepare technical reports along major dimensions to be completed by April 30, 1982.

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